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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/855,045	05/15/2001	Maria Raidel	29226-1PCT/US/ KC13,065.1	2567
22827	7590	05/05/2004	EXAMINER	
DORITY & MANNING, P.A. POST OFFICE BOX 1449 GREENVILLE, SC 29602-1449			ANDERSON, CATHARINE L	
			ART UNIT	PAPER NUMBER
			3761	

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/855,045

Applicant(s)

RAIDEL ET AL.

Examiner

C. Lynne Anderson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 36-40, 42-44, 48-55 and 57-67 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 50-53, 60, 61, 63 and 64 is/are allowed.
- 6) ☒ Claim(s) 36-40, 42-44, 48, 49, 54, 55, 57-59, 62 and 65-67 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 14.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 17 October 2003 has been entered.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim 67 is rejected under 35 U.S.C. 102(e) as being anticipated by Johnston et al. (6,372,954).

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Johnston discloses an absorbent article 10, as shown in figure 1, having a front area, a rear area, and a central area. The absorbent article 10 comprises a liquid permeable layer 14, a liquid impermeable layer 16, a liquid distribution layer 12, and a liquid storage layer 18, as shown in figure 2. The liquid distribution layer 12 has a major surface which defines multiple open flow channels 22 which promote liquid flow in a longitudinal direction of the article 10.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 36-40, 43-44, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sauer (5,527,300) in view of Ahr et al. (4,323,069).

With respect to claims 36 and 48, Sauer discloses all aspects of the claimed invention with the exception of the additional strip of material having openings formed therethrough, the openings being funnel-shaped. Sauer discloses an absorbent article 10, as shown in figure 2, having a length and width, and a front area 12 and rear area 14. The absorbent article 10 comprises a liquid permeable layer 28, a liquid impermeable layer 30, an undulating layer 46, a liquid distribution layer 70, and a liquid storage layer 48, as shown in figure 4. The liquid distribution layer 70 comprises a web of sheet material, as disclosed in column 14, lines 47-55. The undulating layer 46

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comprises elongate undulations defining elongate open flow channels between the undulating layer 46 and the underlying and overlying elements, as shown in figure 3.

Ahr discloses a liquid distribution layer 40 comprising a plurality of funnel-shaped openings that taper inwardly, as shown in figure 5. The funnel-shaped openings of the liquid distribution layer 40 reduce the amount of liquid that may pass back through the layer 40 without reducing the speed with which liquids pass through the layer, as disclosed in column 12, lines 58-62. It would therefore be obvious to one of ordinary skill in the art at the time of invention to provide tapered openings in the liquid distribution layer of Sauer, as taught by Ahr, in order to reduce the amount of liquid able to pass back through the layer.

With respect to claim 37, the instant claim discloses a product, an absorbent article, rather than a process of making an absorbent article. The disclosure of the openings as being formed after fabrication of the web is therefore considered a product by process limitation, and given minimal patentable weight. The web disclosed by Sauer fulfills all of the structural limitations disclosed in the instant claim.

With respect to claim 38, the undulating layer 46 facilitates transfer of fluid longitudinally, as shown in figure 5.

With respect to claim 39, the channels extend along the length of the absorbent article 10, as shown in figure 5.

With respect to claim 40, the undulating layer 46 is connected at spaced locations to the liquid distribution layer 70, as disclosed in column 21, lines 16-20.

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With respect to claim 43, the liquid storage layer 48 extends into the front area 12 and rear area 14, as shown in figure 2. The front and rear areas 12 and 14 may be defined as larger than the central area, and therefore comprise a greater volume of the liquid storage layer 48. The liquid storage layer 48 therefore has a higher retention capacity in the front area 12 or rear area 14 than in the central area.

With respect to claim 44, Sauer discloses all aspects of the claimed invention but remains silent as to the way in which the liquid distribution layer and the liquid storage layer are joined. The use of compression to join two layers is well-known in the art as a secure and economical method of joining layers. It would therefore be obvious to one of ordinary skill in the art at the time of invention to join the liquid distribution layer and the liquid storage layer of Sauer by means of compression, in order to have a secure and economical bond.

Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sauer (5,527,300) in view of Ahr et al. (4,323,069), as applied to claim 36 above, and further in view of Chen et al. (6,206,865).

Sauer discloses all aspects of the claimed invention with the exception of the web being an uncreped through-air-dried material. Chen discloses an absorbent article comprising a liquid distribution layer 18. The liquid distribution layer 18 comprises an uncreped through-air-dried material, as disclosed in column 5, lines 12-15, to provide sufficient fluid passage. It would therefore be obvious to one of ordinary skill in the art

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at the time of invention to construct the web of Sauer from an uncreped through-air-dried material, as taught by Chen, to provide sufficient fluid passage.

Claims 49, 54, 55, 57-59, and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilman et al. (5,437,653) in view of Ahr et al. (4,323,069).

Gilman discloses all aspects of the claimed invention with the exception of an uppermost layer positioned between the liquid permeable layer and the take-away layer. Gilman discloses an absorbent article 10, as shown in figure 1, having a length and width, and a front area, central area, and rear area. The absorbent article 10 comprises a liquid permeable layer 12, a liquid impermeable layer 16, a liquid distribution layer, and a liquid storage layer 22. The liquid distribution layer a take-away layer 20, which comprises passages 18, as shown in figure 2, with zones 28 of relatively greater fiber density of the take-away layer 20 at the points where the take-away layer 20 was compressed to form the passages 26.

Ahr discloses the use of an uppermost layer 36 which provides the article with an improved strikethrough rate, as described in column 9, lines 64-66. It would therefore be obvious to one of ordinary skill in the art at the time of invention to provide the article of Gilman with an uppermost layer, as taught by Ahr, to improve the strikethrough of the article.

With respect to claim 54, the liquid storage layer 22 extends into the front area and the rear area, as shown in figure 1. The front and rear areas may be defined as larger than the central area, and therefore comprise a greater volume of the liquid

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storage layer 22. The liquid storage layer 22 therefore has a higher retention capacity in the front area or rear area than in the central area.

With respect to claim 55, the take-away layer 20 and liquid storage layer 22 are in contact with each other via compression, as shown in figures 1 and 2.

With respect to claim 57, the passages 26 have tapering ends, as shown in figure 2, the tapering ends having feet in contact with the outer surface of the liquid storage layer 22, as shown in figure 1.

With respect to claim 58, the central area may be defined as to contain no passages 26, and therefore is devoid of feet, as show in figure 1.

With respect to claim 59, the absorbent article 20 is a sanitary pad, as shown in figure 1.

With respect to claim 66, the take-away layer 20 comprises passages 26 that taper inwardly toward the liquid storage layer 22, as shown in figure 2.

Claims 62 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilman (5,803,920) in view of Ahr et al. (4,323,069).

Gilman discloses all aspects of the claimed invention with the exception of funnel shaped openings. Gilman discloses an absorbent article 10, as shown in figure 1, having a front area, a central area, and a rear area. The absorbent article 10 comprises a liquid permeable layer 12 and a liquid impermeable layer 14, as shown in figure 2. Liquid distribution layers, shown in figure 6 as the top layers 90, and a liquid storage layer, shown in figure 6 as the bottom layer 90, are disposed between the liquid



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permeable layer 12 and liquid impermeable layer 14. The liquid distribution layers 90 have openings 92 defining discrete passages which promote movement of liquid away from the liquid permeable layer 12. The openings 92 are spaced laterally from each other, as shown in figure 6.

Ahr discloses a liquid distribution layer 40 comprising a plurality of funnel-shaped openings that taper inwardly, as shown in figure 5. The funnel-shaped openings of the liquid distribution layer 40 reduce the amount of liquid that may pass back through the layer 40 without reducing the speed with which liquids pass through the layer, as disclosed in column 12, lines 58-62. It would therefore be obvious to one of ordinary skill in the art at the time of invention to taper the openings in the liquid distribution layer of Gilman, as taught by Ahr, in order to reduce the amount of liquid able to pass back through the layer.

With respect to claim 65, the portion of the funnel shaped openings of Ahr closest to the liquid permeable layer are larger than the portions of the funnel shaped openings most remote from the liquid permeable layer, as shown in figure 5.

#### ***Allowable Subject Matter***

Claims 50-53, 60-61, and 63-64 are allowed.

#### ***Response to Arguments***

Applicant's arguments filed 17 October 2003 have been fully considered but they are not persuasive.

With respect to claim 36, the Applicant's arguments are moot in view of the new rejection under 35 U.S.C. 103(a).

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With respect to claim 43, even considering the placement of superabsorbent material, it is possible to define the front and rear areas such that the claimed limitations are met.

With respect to claims 48, 62, and 65, Ahr teaches the shape of the openings in the liquid distribution layer, which reduce the passage of liquid back through the layer. Ahr is not relied upon for the teaching of the material used to form the liquid distribution layers of Sauer and Gilman.

With respect to claim 49, the applicant's arguments are moot in view of the new rejection under 35 U.S.C. 103(a).

With respect to claim 54, it is possible to define the front and rear areas such that the claimed limitations are met.

With respect to claim 58, the size of the central area is not defined in the instant claim, and therefore the central area of Gilman may be defined as to contain no passages 26, and therefore is devoid of feet, as show in figure 1.

With respect to claim 66, the degree of taper is not defined in the instant claim, and Gilman shows in figure 2 openings having some degree of taper.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Lynne Anderson whose telephone number is (703) 306-5716. The examiner can normally be reached on Monday through Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Calvert can be reached on (703) 305-1025. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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April 28, 2004

  
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